

INSTALLATION RESTORATION PROGRAM  
NO FURTHER REMEDIAL ACTION PLANNED  
DECISION DOCUMENT  
FOR SITE 3  
FINAL



MICHIGAN AIR NATIONAL GUARD  
ALPENA COMBAT READINESS TRAINING CENTER  
ALPENA, MICHIGAN

April 1998

Air National Guard  
Andrews AFB, Maryland

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## ACRONYM LIST

ANGRC	Air National Guard Readiness Center
ARARs	Applicable or Relevant and Appropriate Requirements
BRA	Baseline Risk Assessment
COCs	chemicals of concern
CRTC	Combat Readiness Training Center
DOD	Department of Defense
FS	Feasibility Study
GSI	Groundwater/Surface Water Interface
HQ	hazard quotient
IRP	Installation Restoration Program
MDEQ	Michigan Department of Environmental Quality
MERA	Michigan Environmental Response Act
MIANG	Michigan Air National Guard
RAOs	remedial action objectives
RI	remedial investigation
SI	site investigation

## 1.0 INTRODUCTION

This final decision document presents the rationale for the no action response proposed for the Michigan Air National Guard's (MIANG's) Alpena Combat Readiness Training Center (CRTC) Site 3, the former location of the county garage. No constituents of concern were detected in samples collected at the site in September 1997. The draft final decision document was reviewed by the Michigan Department of Environmental Quality (MDEQ). This final decision document was prepared in accordance with the MDEQ August 19, 1997 and March 24, 1998 letters (Appendix A). This document is part of the U.S. Department of Defense's (DOD's) Installation Restoration Program (IRP).

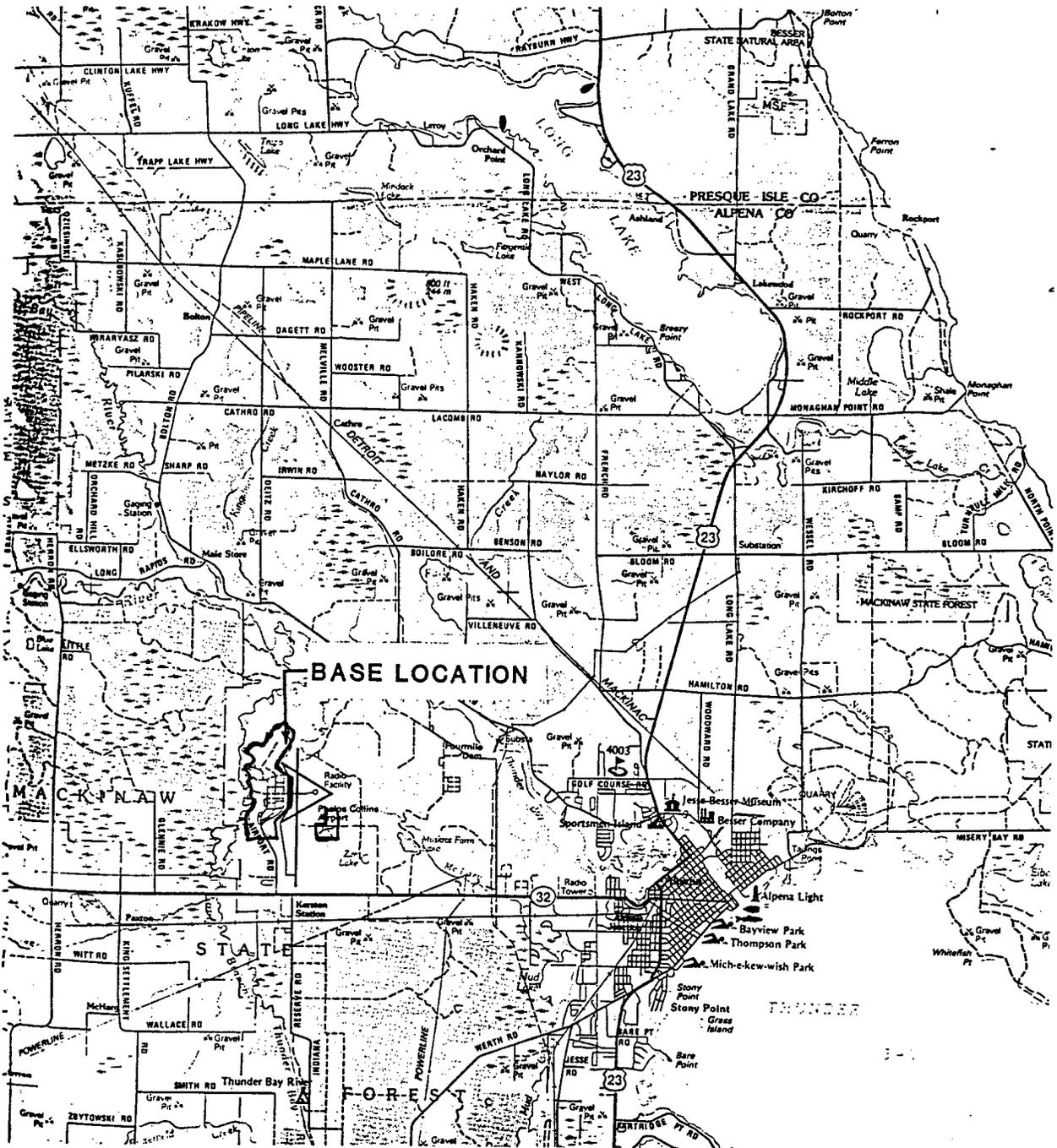
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## 2.0 SITE DESCRIPTION AND HISTORY

The MIANG Alpena CRTC is located at the Alpena County Regional Airport, approximately 5 miles west of the city of Alpena (Figure 1). The Alpena County Airport occupies approximately 3,000 acres of land. MIANG leases and has exclusive rights to approximately 600 acres of that property for the Alpena CRTC.

The Alpena CRTC has a long history of military and training use. Since 1952, the Alpena CRTC has primarily been used as a training facility. Training takes place year-round with the greatest influx of personnel occurring during the months of April through September. The Alpena CRTC has had no assigned aircraft since the mid-1950s, except for a period between 1964 and 1972, when a detachment of aircraft and personnel were on 24-hour intercept alert.

Alpena County operated a maintenance garage at Site 3 from the late 1940s until approximately 1973. An unspecified amount of waste oil was reportedly used as a means of dust control around the garage parking lots and roads (Hazardous Materials Training Center, 1985). Currently, the site is mostly a grassy area, except for some gravel roads. There is a wooded area in the southern portion of the site. Features of Site 3 are presented in Figure 2.

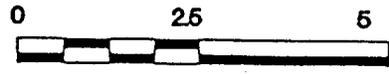


MICHIGAN

QUADRANGLE LOCATION

**NOTE**

BASE MAP DEVELOPED FROM THE MICHIGAN ATLAS AND GAZETTEER PAGE 84, FOURTH EDITION SECOND PRINTING.



SCALE IN MILES



north

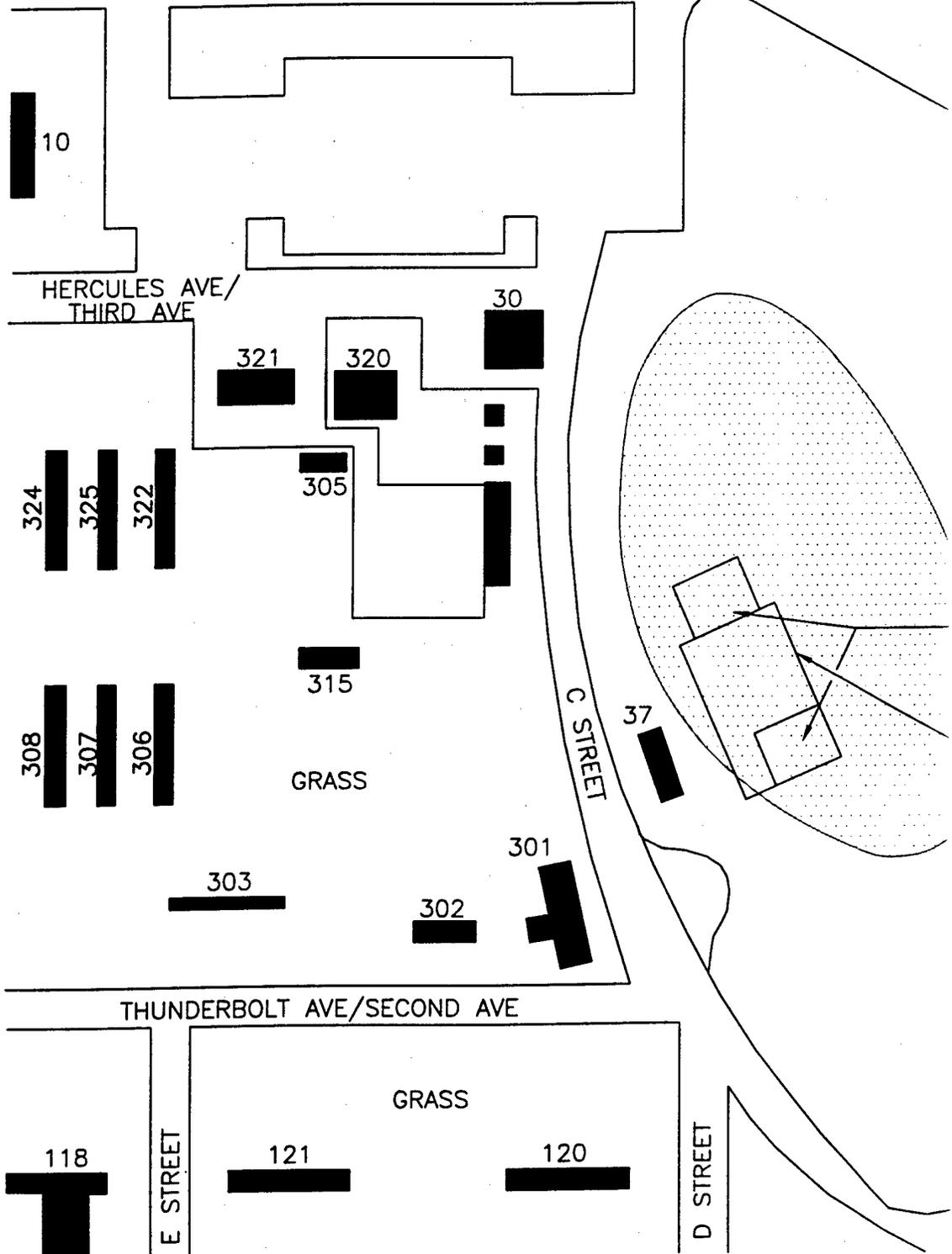
MICHIGAN AIR NATIONAL GUARD  
ALPENA CRTG  
ALPENA, MICHIGAN

BASE LOCATION MAP

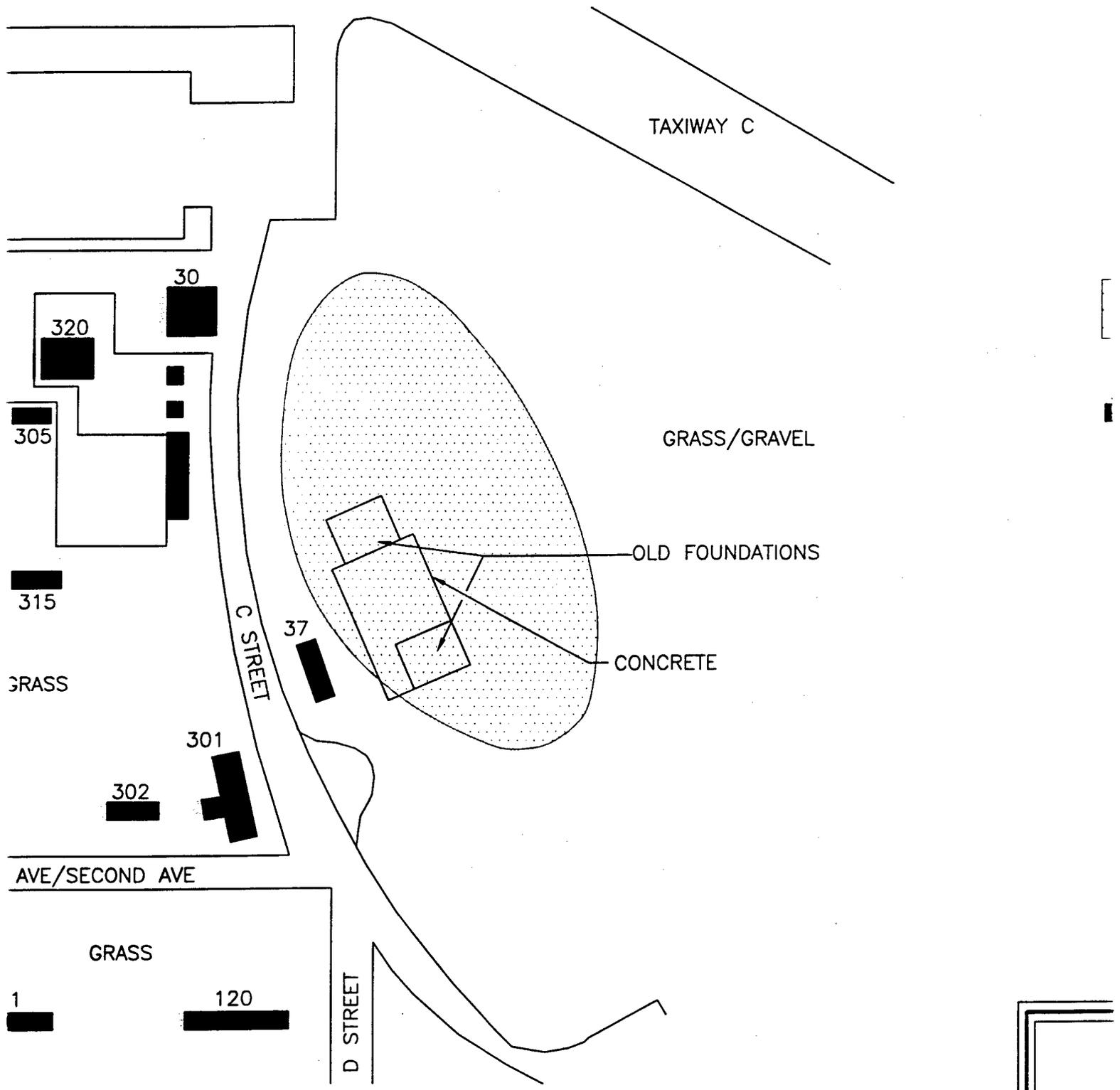
FIGURE 1



**MONTGOMERY WATSON**



1



TAXIWAY C

GRASS/GRAVEL

OLD FOUNDATIONS

CONCRETE

C STREET

D STREET

AVE/SECOND AVE

GRASS

GRASS

1

120

30

320

305

315

301

302

37

2

TAXIWAY C

LEGEND



STUDY AREA

302



BUILDINGS WITH BUILDING NUMBERS

GRASS/GRAVEL

OLD FOUNDATIONS

CONCRETE



0 150 300

SCALE IN FEET

MICHIGAN AIR NATIONAL GUARD  
ALPENA CRTC  
ALPENA, MICHIGAN

SITE 3 - FORMER SITE OF COUNTY GARAGE  
SITE FEATURES MAP

FIGURE 2



**MONTGOMERY WATSON**

### 3.0 SUMMARY OF SITE ANALYSIS

Our investigative work at Site 3 included both the site investigation (SI) from 1987 to 1991, and the remedial investigation (RI) from 1992 to 1993. The SI field work consisted of drilling soil borings, installing groundwater monitoring wells, and collecting soil and groundwater samples for analysis. We collected surface and subsurface SI soil samples in 1990. In addition, we completed three rounds of groundwater sampling as part of the SI in 1987, 1988, and 1991. The RI included surface geophysical surveys in 1992. We also completed soil borings, monitoring well installation, and soil and groundwater sampling and analysis in 1993 as part of the RI field activities.

Figure 2-3 in the Final Feasibility Study (FS) (Montgomery Watson, 1996) shows the sampling locations for Site 3. The SI Report and the RI Report (The Earth Technology Corporation, 1995) include the details on the sampling, including the depth of each sample, contaminant concentrations, the depth of the contamination, and the methods used in collecting and analyzing the samples. The following sections are a discussion of the chemicals of concern (COCs) identified in the FS for groundwater and soil at Site 3.

#### 3.1 Groundwater

Constituents in groundwater samples from Site 3 were compared with Applicable or Relevant and Appropriate Requirements (ARARs) to identify COCs. ARARs considered in the FS include:

- Generic Industrial Cleanup Criteria for health based drinking water value (Industrial Drinking Water Values) as outlined in the Michigan Environmental Response Act (MERA), Operational Memorandum #14, Revision 2, June 1995.
- Generic Industrial Groundwater/Surface Water Interface (GSI) as outlined in the MERA, Operational Memorandum #14, Revision 2, June 1995.

According to the RI Report, manganese was present in a groundwater sample from one well (CG3MW3) during the field investigation in 1991 at levels exceeding the Industrial Drinking Water Values. We found no contaminants above Industrial Drinking Water Values in any wells, including CG3MW3, during the most recent (1993) sampling round.

Based on the site analysis in the FS, there are no contaminants that require remediation in the groundwater at Site 3.

### **3.2 Soil**

Constituents in soil samples from Site 3 were compared with ARARs to identify COCs. ARARs considered in the FS include:

- Generic Industrial Cleanup Criteria for soil direct contact (Industrial Direct Contact Values) as outlined in the MERA, Operational Memorandum #14, Revision 2, June 1995.
- Generic Industrial Cleanup Criteria for soil considered protective of groundwater as outlined in the MERA, Operational Memorandum #14, Revision 2, June 1995.

Based on information presented in the RI Report, the soil samples collected at Site 3 did not contain concentrations of contaminants in excess of the Industrial Direct Contact Values.

Selenium was present in one soil sample (CG3MW1) at concentrations in excess of its Default Background Value. This contaminant was not present in excess of Industrial Drinking Water Values in the groundwater sampled from CG3MW1, nor was it present in downgradient wells CG3MW2 and CG3MW7. Two organic constituents were present at CG3SB13. Phenanthrene was present at 20 times the Industrial Drinking Water Values. Dibenzofuran was also present but it does not have a MDEQ criterion for comparison. Neither of these constituents was present in the groundwater sampled from downgradient wells CG3MW3, CG3MW4, and CG3MW5. Therefore, the soil at Site 3 is considered protective of groundwater.

Based on the site analysis in the FS, there are no contaminants that require remediation in the soil at Site 3.

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#### 4.0 RISK ASSESSMENT

A baseline risk assessment (BRA) was performed during the RI to assess the risks posed to human health and the environment by the constituents present at the Alpena CRTC sites. This section summarizes the BRA results for Site 3. The complete BRA analysis for Site 3 is presented in the RI Report.

No current complete exposure pathways were identified in the RI Report for Site 3. Future complete exposure pathways were only identified for the future excavation worker, including subsurface soil ingestion and dermal contact, and inhalation of fugitive dust. Carcinogenic and non-carcinogenic exposures were evaluated for all complete pathways in the RI Report BRA. The report indicates that no future pathways exceed MDEQ established cancer risk of  $1 \times 10^{-5}$ . No hazard quotient (HQs) above 1 were calculated for the excavation worker, indicating a low potential for adverse non-carcinogenic effects.

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## 5.0 FEASIBILITY STUDY

The FS considers two alternatives for remediation of Site 3. The remedial alternatives analyzed for Site 3 included:

- No Action: The No Action Alternative serves as a baseline for comparison with other remedial alternatives. Under this alternative, no remedial actions would be completed at Site 3 to contain or reduce the contaminants in the soil and groundwater.
- Limited Action for Groundwater: Under the Limited Action Alternative the contaminants in the groundwater would not be contained or treated, but allowed to naturally attenuate. Monitoring of groundwater would be completed to support the information provided in the RI Report. Institutional controls would be implemented to prevent groundwater use while monitoring was taking place.

The No Action Alternative is the selected alternative for Site 3. The No Action Alternative will be protective of human health and the environment for Site 3. This alternative will meet remedial action objectives (RAOs) and ARARs established in the FS for groundwater and soil. Based on the information presented in the RI Report, Site 3 currently poses no human health or environmental concerns. Levels of constituents present in the soil samples do not exceed the Industrial Direct Contact Values. The soil has been shown to be protective of groundwater since none of the contaminants present in the soil were present at concentrations exceeding Industrial Drinking Water Values during groundwater sampling. There have been a total of four rounds (1987, 1988, 1991, and 1993) of groundwater sampling. During the first three rounds of sampling, manganese was the only contaminant present at concentrations in excess of regulatory limits. During the 1993 sampling, there were no contaminants in excess of Industrial Drinking Water Values.

The Limited Action Alternative would provide additional groundwater monitoring for Site 3. This alternative would also be protective of human health and the environment, and would meet

RAOs and ARARs established for groundwater and soil. Available sampling results from Site 3 show that the site currently poses no human health or environmental concerns; therefore, additional monitoring/sampling is not necessary.

## 6.0 CONCLUSION

Site 3 was evaluated for potential contamination in groundwater and soil due to past activities at the site. Based on the results of the field investigation, there is minimal contamination in the soil and groundwater at Site 3. This site does not pose a threat to human health or the environment. The site currently meets all RAOs and ARARs established in the FS. Therefore, no remediation activities are required at the site. The recommended alternative for this site is the No Action Alternative.

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7.0 DECISION

On the basis of the findings at the Alpena CRTC Site 3, there is no evidence of significant environmental contamination at the site. Site 3 currently poses no risk to human health or the environment. This site will be removed from further consideration in the IRP process and no further investigative or remedial activities will be conducted with regard to the site.



Chief, Environmental Division

11/24/97

Date

-----  
Michigan Department of Environmental Quality

Concur

Non-Concur (Please provide reason)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

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## 8.0 REFERENCES

- Hazardous Materials Technical Center, 1985. *Installation Restoration Program Records Research: Phelps Collins Air National Guard Base, Alpena, Michigan.*
- The Earth Technology Corporation, 1993. *Site Investigation Report, Combat Readiness Training Center, Michigan Air National Guard, Alpena County Regional Airport, Alpena, Michigan.*
- The Earth Technology Corporation, 1995. *Final Remedial Investigation Report, Alpena Combat Readiness Training Center, Alpena County Regional Airport, Michigan Air National Guard, Alpena, Michigan.*
- Montgomery Watson, 1996. *Final Feasibility Study, Alpena Combat Readiness Training Center Alpena, Alpena Michigan.*

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**APPENDIX A**

**LETTERS FROM THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL  
QUALITY**

STATE OF MICHIGAN



JOHN ENGLER, Governor  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: [www.deq.state.mi.us](http://www.deq.state.mi.us)

RUSSELL J. HARDING, Director

REPLY TO:

ENVIRONMENTAL RESPONSE DIVISION  
KNAPPS CENTRE  
PO BOX 30426  
LANSING MI 48909-7926

August 19, 1997

Mr. Paul Wheeler -  
ANGRC/CEVR  
3500 Fetchet Avenue  
Andrews AFB, Maryland 20762-5157

SUBJECT: Phelps Collins ANG, Alpena County

Dear Mr. Wheeler:

Staff from the Michigan Department of Environmental Quality (MDEQ) have reviewed the Installation Restoration Program, Draft Final Decision Documents, dated July 1996, for sites 1, 3, 5, 6, 7, 8, 9, and the Final Decision Documents for sites 11, 14, 15, and 16, which were dated May 1996. Staff have provided the following comments concerning the documents:

A "Limited Action Alternative" is approved for sites 1, 5, 6, 7, and 9 to monitor for exceedances of Groundwater Surfacewater Interface (GSI) criteria. The proposed alternative is to include the installation of wells (per the June 10, 1997 meeting minutes), quarterly sampling and institutional controls to prevent public exposure. Should exceedances of the GSI standard occur, a more aggressive remedial action may be requested for the site.

While the proposed monitoring addresses downgradient GSI concerns regarding the sites, additional sampling to verify that source area soils and groundwater are remediated are still needed prior to closure. It will be necessary to demonstrate that groundwater, in the source area as well as downgradient, does not exceed appropriate standards for a minimum period of one year, prior to closure. Institutional controls on the property will need to take into account all relevant exposure pathways as required under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, 20118 (6(d)(ii)).

The Decision Documents for sites 3 and 8 had proposed no action alternatives for the sites. It was agreed in our June 10, 1997 meeting that a limited amount of sampling will take place to verify previous sampling at the sites. Should the agreed upon sampling indicate that contamination is not present at the proposed locations, a no action alternative will be approved for the sites.

Staff are in concurrence with the "No further Action" decisions reached in the "Final Installation Restoration Program Decision Documents" prepared for sites 11, 14, 15, and 16. Based on the above referenced reports, the levels of contaminants which will remain in soils have been characterized and do not pose an unacceptable risk on the basis of standardized exposure assumptions and acceptable risk levels (Residential Cleanup Criteria), as described in the provisions of R 299.5709 to R299.5715 of the administrative rules of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. The sites can be considered closed with regard to these contaminants.

STATE OF MICHIGAN



JOHN ENGLER, Governor

**DEPARTMENT OF ENVIRONMENTAL QUALITY**

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INTERNET: [www.deq.state.mi.us](http://www.deq.state.mi.us)

RUSSELL J. HARDING, Director

March 13, 1998

REPLY TO:

ENVIRONMENTAL RESPONSE DIVISION  
KNAPPS CENTRE  
PO BOX 30426  
LANSING MI 48909-7926

Mr. Paul Wheeler  
ANGRC/CEVR  
3500 Fetchet Avenue  
Andrews AFB, Maryland 20762-5157

Dear Mr. Wheeler:

SUBJECT: Alpena Combat Readiness Training Center, Alpena Michigan

Staff of the Michigan Department of Environmental Quality (MDEQ) have reviewed the "Installation Restoration Program, No Further Remedial Action Planned, Decision Documents" for Sites 3 and 8 dated November, 1997 and received December 19, 1997. We consider these documents as interim action documents and not subject to the requirements of Section 20114(8) for final remedial action plan (RAP) review.

Based on our review of these documents, we concur with the "No Further Action Planned" decisions of the "Final Installation Restoration Program Decision Documents" prepared for sites 3 and 8. However, we cannot concur that all necessary requirements of Part 201 have been met since site closure to generic industrial criteria requires submission and approval of a final RAP as well as two important elements described as follows:

- a. Documentation that the current zoning is consistent with the categorical criteria being proposed, or that the governing zoning authority intends to change the zoning designation so that the proposed criteria are consistent with the new zoning designation, or the current property use is a legal non-conforming use.
- b. Consistent with Section 20120b(2), a notice of approved environmental remediation (NAER) must be recorded with the register of deeds for the county in which the facility is located within 21 days after approval of the remedial action by the department. Accordingly, a draft NAER must be submitted to the department with the final RAP. If the restrictions only apply to a subset of the parcel or if different restrictions apply at different areas of the parcel, the draft NAER must include a survey and property description that define the areas addressed by the RAP.

We look forward to the receipt of these documents in the near future to bring this facility to final closure. If you have any questions or need further information, please feel free to contact Mr. Andy Stempky at 517-731-4920, or you may contact me.

Sincerely,

Mr. Daniel Schultz, Chief  
Field Operations Section  
Environmental Response Division  
517-241-7706

cc: Mr. Fred Kimble, Alpena ANG  
Mr. Robert Wagner  
File

Mr. Robert Delaney, MDEQ  
Mr. Andy Stempky